

# The Year 2004 in Review

By Michael Soukup

**A PARK SUPERINTENDENT** once complained to me, “if it weren’t for so many natural resource issues, I’d be able to manage my park.” Thankfully, that was in the last century. The new breed of park manager better understands the complexity of the modern landscape and the reality that managers must know their resources and the processes that either maintain or threaten them. They also comprehend that they must invest in a long-term institutional memory that will serve to educate a nation of stakeholders in whose hands the fate of national parks rests. As a small exercise in science education, this volume attempts to recap the experiences and achievements of 2004 and assess their meaning for the natural resources of our national parks. In 2004 we made great progress in delivering the tools parks need to know their resources and to implement actions necessary to protect the quality of both the resources and the visitor’s experience.

Part of the role of our Natural Resource Stewardship and Science directorate is to bring objective scientific information to decision makers, supporters, and critics of the National Park Service. This year was a turbulent, challenging one for us, not only because of natural resource gains and losses, but also because of the political context of a national election, even though the environment in general did not become a focus of the national debate.

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Aside from the relatively pressing affairs of state, I suspect that one reason for the lack of focus on the environment in 2004 is the apparent success the public sees in positive trends in water and air quality in many parts of the United States. Similarly, in many national parks we see progress in restoring populations of condors, whales, wolves, peregrine falcons, and the Miami blue butterfly, as well as reclaimed mining lands and plans to reopen rivers where salmon are sure to return. Other truly inspiring things are happening, too, like the public’s fascination with the All Taxa Biodiversity Inventory at Great Smoky Mountains National Park and its spread to Point Reyes National Seashore. In Yellowstone the value of a single species is coming to light with mounting evidence of the impact the gray wolf is having on the entire balance of the greater Yellowstone ecosystem.

A major highlight was the enthusiastic approval of the National Park System Advisory Board of its Science Committee’s report, “National Park Service Science in the 21st Century” (available from “Information Links” at <http://www.nature.nps.gov/scienceresearch>). Among the report’s insights was, “The National Park Service has no choice: Mastering the science required to maintain ecological integrity



Associate Director Soukup and Deputy Associate Director Abby Miller pause momentarily at a February 2005 celebration honoring Abby, who is retiring from the National Park Service. The two have worked closely with each other in Washington for 10 years, helping to usher in and guide many important natural resource programs.

is central to its unimpairment mandate.” It also included a positive peer review of the NPS Natural Resource Challenge program and an exhortation for the National Park Service to fulfill its proper role in maintaining parks as natural laboratories and to realize its core mission of biodiversity conservation.

Another highlight for me this year was perhaps the most succinct statement I’ve seen that we ought to save all the pieces of the natural systems that mean so much to us as a nation. I spotted it in a letter to the editor of the *New York Times* (9 August 2004) from the Honorable Russell Train, former EPA administrator and recipient of the Presidential Medal of Freedom. The headline read, “National parks, for Americans of all species.”

A final item of interest was the calculation by the Environmental Protection Agency that as we began 2004, the gross domestic product during the tenure of the Clean Air Act of 1970 had grown by 176% while emissions of six principal air pollutants had decreased by 51%. Indications that quality of life and a robust economy are compatible should encourage a wide range of interests to get together for a new, dispassionate look at how to tackle the major challenges ahead, including those for the conservation of national parks. I hope that the entire political spectrum can coalesce around a common vision of life on the planet that we want for ourselves and for future generations too. While joking abounds about those who would “save the whales,” I think everyone deep down will be glad that, as a generation, we did. Now, on to the oceans!

A handwritten signature in black ink, appearing to read "M. Soukup". The signature is stylized with a large, sweeping initial "M" and a long, horizontal flourish extending to the right.

Mike Soukup

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# Year at a Glance—2004

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## january

Two weeks before the New Year, the National Park Service launches its new natural resource Web site, Nature & Science, at [www.nature.nps.gov](http://www.nature.nps.gov). This is not simply a revised look for the former NatureNet; more than 80% of the content is new, including pages about global conservation, hazards and safety, research learning centers, natural sounds, how visitors can help parks, and how the Park Service provides stewardship of natural resources.

The Association for Women Geoscientists selects four new Geoscientists-in-the-Parks positions to address park research, resource management, and interpretation needs through specialized expertise. These park placements are in addition to 13 funded by the Geological Society of America in 2004.

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## february

Kenai Fjords National Park, the Ocean Alaska Science and Learning Center, and the Alaska SeaLife Center host “Interpretive Research and Resource Liaison” with assistance from the Natural Resource Information Division. This is the first time the course is offered to all NPS employees, and its content focuses on helping participants integrate educational products and outreach services into resource management and research projects. It also helps them develop funding proposals for critical resource issues.

Assistant Secretary Craig Manson announces the initiative to protect Virgin Islands Coral Reef National Monument and the expanded Buck Island Reef National Monument. In cooperation with the National Oceanic and Atmospheric Administration, the National Park Service will commit personnel and \$400,000 to support surveying reef habitats and documenting populations over the next four years.

The U.S. Geological Survey publishes “Vulnerability Assessment of Fire Island to Sea-level Rise,” the first in a series of about 20 reports produced as a result of a joint project in 2004 with the National Park Service (see article, page 31).

Fourteen Exotic Plant Management Teams fight tamarisk (salt cedar) in Courthouse Wash at Arches National Park (Utah). This is the first large-scale deployment of the teams and provides an opportunity for information sharing with resource managers from other countries, federal and local agencies, and academia (see article, page 36).

Virginia Electric and Power Company's (now Dominion) consent decree provides \$1 million for air quality mitigation projects at Shenandoah National Park. The air quality mitigation plan seeks to decrease emissions from mobile sources of air pollution in and around the park by the purchase and use of specialized, energy-efficient vehicles and alternative fuels. In addition, park staff will develop a program to educate the public about the environmental benefits of such vehicles.

The National Park Service receives \$280,016 in new monies from the USDA Forest Service to treat forest insects and diseases in 12 parks. Six projects will target hemlock woolly adelgids, which surged into the Southeast during the past two years.

With support from the National Park Foundation and the National Teachers Association, the Park Service presents a workshop, "Communicating Complex Biological Stories in National Parks." National Park Service employees and teachers discuss case studies from parks, including West Nile virus management at Fire Island National Seashore (New York) and biological diversity issues at Yellowstone National Park (Wyoming).

At the Natural Resource Advisory Group meeting, Associate Director Soukup announces the winners of the 2003 Director's Awards for Excellence in Natural Resource Stewardship and Science. The winners are a park superintendent, three resource managers, a researcher, and a facility manager.

An agreement settling water rights for Timpanogos Cave National Monument is executed between the United States and Utah. It establishes protections for cave and river resources and will be jointly supported as a resolution of water rights issues before the water adjudication court.

Director Fran Mainella addresses the North American Wildlife and Natural Resources Conference in Spokane, Washington. In her talk, "The National Park Service's Role in the Voyage of Rediscovery," she reinforces the importance of partnerships and Natural Resource Challenge programs to improvements being made in the scientific exploration and stewardship of national parks.

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## april

The National Park Service launches the Crater Lake Science and Learning Center, the first of three research learning centers established in 2004. In August the Murie Science and Learning Center in Denali National Park is dedicated and the Mammoth Cave International Science and Learning Center begins operating in partnership with Western Kentucky University.

The Biological Resource Management Division convenes a workshop exploring the application and refinement of NPS policy related to resource management and the use or occurrence of genetically modified organisms in or near national parks. Participants discuss the use of such organisms in the management of cultural landscapes and park natural areas and concerns about their unintended introduction to parks.

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## may

The Chesapeake Watershed and Southern Appalachian Mountains Cooperative Ecosystem Studies Units, in collaboration with the Pennsylvania State University, host “Restoration of American Chestnuts Within National Parks.” During the workshop, participants review the status of chestnut blight research and develop a common understanding of NPS policies, objectives, opportunities, and directions for American chestnut restoration programs on park lands.

The Intermountain Power Service Corporation has proposed to build a 950-megawatt, pulverized coal-fired power plant next to two existing units. If it is built, emissions from the proposed unit and those already in operation could impact visibility at Utah’s five Class I (air quality) parks: Capitol Reef, Bryce Canyon, Zion, Canyonlands, and Arches National Parks. The Air Resources Division recommends that Utah require emissions reduction strategies to mitigate the cumulative visibility impacts at parks in the region.

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## june

The National Park Service renews agreements for four Cooperative Ecosystem Studies Units (CESUs), each for a second five-year term: Colorado Plateau, North Atlantic Coast, Rocky Mountain, and Southern Appalachian Mountains. The Colorado Plateau and Rocky Mountain CESU agreements include new partners Fort Lewis College and Colorado State University, respectively.

The Geologic Resources Division convenes park managers for a workshop designed to improve NPS administration of often controversial private oil and gas operations in parks. The session addresses permit processing, environmental compliance, and emerging issues for oil and gas operations in parks.

Deputy Director Randy Jones forms a task force of 10 field managers to implement the NPS “Ocean Park Stewardship Strategy.” Chaired by Visiting Chief Scientist Gary Davis, the task force establishes a timeline for addressing the 27 action items identified in the strategy to improve conservation in ocean parks.

The Oklahoma Water Resources Board grants a temporary permit to withdraw groundwater from the Arbuckle-Simpson aquifer up-gradient from Chickasaw National Recreation Area (Oklahoma). In its decision, the board acknowledges concerns raised earlier by the National Park Service for park spring and stream resource protection, by approving only a portion of the amount of water requested for irrigation and by making the permit temporary and subject to the results of an aquifer-wide hydrogeologic study being conducted jointly by state and federal governments. The study is intended to measure aquifer characteristics needed to determine how much development can occur before impacts to other users and resource values occur.

Associate Director Mike Soukup selects six employees to receive the first NPS professional development grants. Awardees will attend the Penn State Executive Program for Natural Resource Managers or USDA graduate school sessions such as the Executive Leadership Program. Their participation in the program will build natural resource management leadership and technical capacity for the National Park Service.

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## july

In 2003, the U.S. District Court (Southern District of Ohio) ruled that FirstEnergy Corporation made modifications to its W.H. Sammis power plant in Stratton, Ohio, without obtaining proper permits. Analyses showed that the Sammis plant is one of the top five contributors to visibility impairment at Shenandoah National Park, Virginia. In preparation for the remedy phase of the trial, the Air Resources Division provided expert testimony in April about the plant’s impact on air quality at the park. The company agrees to an out-of-court settlement this month that will reduce its sulfur dioxide emissions by about 80% and its nitrogen oxide emissions by at least 90%.

Olympic National Park, City of Port Angeles, and the Lower Elwha Klallam Tribe sign a memorandum of understanding to remove the two Elwha River dams and mitigate the impacts of dam removal on the local community. This agreement, which was in negotiation for years, clears the way for the restoration of the Elwha River ecosystem and its once-famous salmon runs (see article, page 61).

Secretary of the Interior Gale Norton approves a three-year project totaling \$1.9 million for the National Park Service, U.S. Fish and Wildlife Service, and Bureau of Land Management to cooperatively develop information and management tools that assess potential impacts of water development in southern Nevada. The Water Resources Division assisted the bureaus in preparing the proposal for the project, which will evaluate the effects of groundwater pumping on sensitive water resources, water-dependent habitats, and species in the region.

Following settlement of three Park System Resource Protection Act cases, staff of the Environmental Quality Division, park staff, and contractors perform successful seagrass restoration at Biscayne National Park (Florida). Planning for this work began in 1999 when permits were prepared and submitted for the restoration of seagrass (*Thalassia*) in areas where vessels had run aground causing impacts in the form of prop scars, trenches, and blowholes.

The British journal *NewScientist* publishes comparative 1899 and 2003 photos of Muir Glacier in Glacier Bay National Park in an article relating increased earthquake activity to glaciers melting in Alaska. The photo pair is part of an ongoing Geologic Resources Division glacier monitoring project at several national parks.

The Natural Sound Program holds four workshops in the Northeast Region with the help of the Philadelphia Support Office. Each daylong workshop presents an overview of soundscape management, a primer on acoustics science and measurement, and a discussion of the essential elements of soundscape planning. The program assists parks in dealing with the management of activities that may be loud or intrusive; the effects they may have on visitor enjoyment of park solitude, wildlife, and cultural resources; and finding solutions to these problems.

The Water Resources and Natural Resource Information Divisions sponsor a symposium on fisheries management in the national parks at the 134th annual meeting of the American Fisheries Society in Madison, Wisconsin. Eighteen presentations summarize the history of the NPS fisheries program, native species and habitat restoration, ocean fisheries, and individual park projects and programs. Several hundred professional fishery scientists and managers from North America attend.

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## september

The Natural Resource Program Center and the Albright Training Center host the 2004 Natural Resources Law and Policy course for superintendents. This highly popular training covers NPS legal and policy responsibilities and topics germane to natural resource management, including application of state and local law, the Freedom of Information Act, the administrative record, and protection of sensitive resource information.

A federal court judge rules that the United States owns the sand and gravel resources on a scenic wilderness beach in Olympic National Park (Washington). Private mineral owners, who still hold the rights to gold, oil, and gas that may be present on the beach, had sought to develop the sand and gravel. Because of the speculative nature of the remaining minerals and the remoteness of the area, development is unlikely.

Director Mainella signs Director's Order 14, Resource Damage Assessment and Restoration. The order provides Service-wide guidance for damage assessment activities and related cost recovery for subsequent environmental restoration or compensation for lost or diminished park and visitor use.

The Natural Resource Stewardship and Science Directorate proposes that the "Seamless Network of Ocean Parks and Marine Sanctuaries" initiative be included in the Bush administration's response to the Commission on Ocean Policy report (see article, page 28). The initiative proposes expanded coordination between the Department of the Interior and the National Oceanic and Atmospheric Administration.

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## october

The American Fisheries Society presents Gary Davis, a longtime NPS scientist at Channel Islands National Park (California) and NPS Visiting Chief Scientist for Ocean Programs, with the William E. Ricker Resource Conservation Award. The society presents the award to an individual or organization it deems to have made nationally or internationally significant accomplishments toward resource conservation.

Staff of the Biological Resource Management Division, Wildlife Health Program, attends three professional meetings to make presentations on chronic wasting disease and other wildlife disease issues (see article, page 19). These presentations are aimed at helping managers understand the importance of host, habitat, and pathogen characteristics that lead to wildlife diseases.

The Shenandoah Watershed Study—the longest continuously conducted watershed research and monitoring program in the National Park System—celebrates its 25th anniversary by hosting the "Virginia Mountain Streams Symposium." The symposium focuses on the challenges facing managers of mountain streams in the East, such as changes within watersheds and external stressors.

Director Mainella participates in the dedication of Cuyahoga Valley National Park (Ohio) as an Important Bird Area (IBA), and recognizes park partners and citizen scientists who provided information supporting the IBA nomination and designation (see article, page 96). The event also launches plans for international cooperation between Cuyahoga Valley National Park and another Important Bird Area, Point Pelee National Park, which lies across Lake Erie in Ontario, Canada. The two parks share many migratory bird species.

As part of the inventory effort under the Natural Resource Challenge, the Geologic Resources Division distributes the first set of completed geologic reports to Glacier and Rocky Mountain National Parks and Natural Bridges and Hovenweep National Monuments. The reports complement the digital geologic maps being developed by the division.

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## november

The National Park Service publicly launches the Web-based communication system Planning, Environment, and Public Comment (PEPC), which streamlines National Environmental Policy Act (NEPA) and other compliance and planning activities. This online tool consists of both internal and external components: internally for project planning, tracking, analysis, and response, and externally for public comments and checking the status of planning documents. The public side of the system is available at <http://parkplanning.nps.gov>.

Canon U.S.A., Inc., announces selection of its annual National Parks Science Scholars. Eight Ph.D. students from Argentina, Canada, and the United States receive prestigious \$78,000 scholarships to conduct research critical to conserving national parks. Four students receive honorable mention awards of \$1,000. An international scientific panel convened by the American Association for the Advancement of Science reviewed 135 proposals for the 2004 competition.

The Sierra Club files a lawsuit challenging the National Park Service's management of directional oil and gas drilling techniques from surface locations outside park boundaries. The suit alleges that a 2003 guidance memorandum revised NPS regulations without public involvement. The Park Service maintains that the memo clarifies existing regulations and compliance procedures.

Geologic Resources Division staff chair five technical sessions at the Geological Society of America's annual meeting, which attracts more than 6,000 geoscientists. Sessions include cave and karst science, geologic mapping and resource management, opportunities for partnerships with the National Park Service, informal geoscience education in parks, and teaching geology of national parks.

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## december

The NPS Environmental Response, Damage Assessment, and Restoration (ERDAR) Program summarizes the type and number of cases processed under the Park System Restoration Protection Act in 2004, as follows: trespass (5), encroachment (14), groundings (13), pollution incidents (3), facility injuries (4), damages to historic structures (2), and airplane crash (1). The ERDAR Program seeks compensation from responsible parties for the restoration of injured or lost park resources to their pre-incident condition.